

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Haes, Robert
Serial No. : 10/595,863
Filed : March 8, 2007
Title : FILTER ELEMENT MOUNTING APPARATUS
Examiner : Gonzalez, Madeline Art Unit: 1797

Assistant Commissioner for Patents
Washington DC 20231

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Sir or Madam:

Applicant hereby requests review of the final rejection in the above-identified application. No amendments are being filed with this request. This request is being filed with a notice of appeal. The review is requested for the reasons stated on the attached sheets.

Respectfully submitted,

/daniel j. holmander/

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PRE-APPEAL BRIEF REMARKS

I. Background

The Applicant has filed three previous papers or Office Action responses (Papers 1-3) in response to three previous Office Actions during prosecution of U.S. Pat. Appl. Ser. No. 10/595,863. Papers 1-3 are listed below and referenced throughout section II of the Pre-Appeal Brief Remarks. The following papers 1-3 are incorporated herein by reference: Paper 1 (3-12-2008 Response to Office Action dated 12-12-2007); Paper 2 (12-12-2008 Response to Office Action dated 6-12-2008); Paper 3 (6-25-2009 Response to Office Action dated 2-27-2009).

II. Clear Errors and Omissions in the Examiner's Rejections

A. The Examiner has clearly erred in rejecting claims Claims 1-7, 10, and 18-20 under 35 USC §103(a) as being unpatentable over a combination of Patterson and Chen (U.S. Pat. No. 6,319,300). See Remarks at Paper 3.

The Applicant believes the Examiner has clearly erred in rejecting Claims 1-7, 10, and 18-20 under 35 USC §103(a) for the following reasons. The Applicant believes that Claim 1 is patentable over Patterson by virtue of both its requirements for (i) the edge strips to be as wide as the pleats formed in the filter clothes; and (ii) the end edge regions of the filter cloth to be retained by clamping means which press parts of the end regions of the filter cloths against an inner face of a slotted wall to either side of a slot, the clamping means having means bearing on the inner surface of a wall of the tubular member opposite to the slot. In contrast, Figure 5 of Patterson discloses only an edge strip which is significantly smaller than the pleats formed in the filter cloth. Also, the edge strip of Figure 5 of Patterson does not contain a slotted wall (i.e. a wall containing a slot its face). Specifically, the orifice through which the filter is inserted in Fig. 5 is not a slotted wall (i.e. a wall containing a slot in its face) but is instead a slot defined by two parallel walls. The requirements in the present invention for the edge strip to comprise a slotted wall, and to comprise a clamping means having means that bear upon a wall opposite this slotted wall, ensure that the filter of the present invention is securely clamped such that the filter seal is not compromised by the large forces exerted during reverse pulsing of air (used to clean off the dust cakes that build up on the filter). The edge strip of Patterson is inadequate to secure its filter

against such filter. The edge strip of Patterson is inadequate to secure its filter against such high forces, and this is why moulded head and tail sections (13, 14) are additionally required. (See page 7, lines 6-7 of Patterson). Since the edge strip of the present invention is capable of clamping the filter such that additional moulded sections (as seen in Patterson) are not required, it is advantageous to make the edge strips at least as wide as the pleats formed in the filter cloth in order to protect the filter pleats. This need arises due to removal of the need for Patterson's moulded sections. Patterson contains no teaching with regard to how to modify the edge strips of Figure 5 to improve their clamping strength, and thus the use of a slotted wall, and a clamping means bearing upon a wall opposite this wall, in order to improve clamping strength is inventive over Patterson alone. Further, Patterson does not disclose the use of edge strips without the associated use of additional moulded sections, and thus the use of oversized edge strips instead of edge strips plus additional moulded sections is also inventive over Patterson above. The Examiner has rejected Claims 1-7, 10, and 18-20 under 35 USC §103(a) as being unpatentable over a combination of Patterson and Chen (U.S. Pat. No. 6,319,300). This, however, is denied. First, Chen concerns a very different type of filter to that of Patterson, specifically a car air filter (column 6, line 39). This type of filter is not formed from a series of lozenge-shaped filtration chambers and would not be subject to reverse pulsing to clear dust-cake build-up. Indeed, car air filters are simply replaced once they become clogged. Therefore, the person of ordinary skill in the art would not look at Chen when contemplating how to increase the clamping power of Patterson such that the filter seal is not compromised by reverse air pulsing. Even if a person of ordinary skill in the art were to look at Chen, which is denied, the edge strips of Chen do not hold the filter in place alone and instead additional use is made of positioning grooves 27A and 27B (Column 4, lines 1-13). There is no disclosure in Chen of clamping means that press parts of the end regions of the filter cloth against the inner face of the slotted wall to either side of the slot, nor of the clamping means having means bearing on the inner surface of a wall opposite to the slot. Any combination of Chen with Patterson would encourage the use of moulded head and tail sections to secure the filter cloth (since the positioning grooves of Chen and the moulded head and tail sections of Patterson perform a virtually identical function), rather than teach towards of the abolition of these moulded sections in favor of a more secure edge strip comprising the

clamping means of our claims. Therefore, Claims 1-7, 10, and 18-20 are patentable over a combination of Patterson and Chen.

B. The Examiner has clearly erred in rejecting claims 9, 11, and 12 under 35 U.S.C. §103 (a) as being unpatentable over Patterson and Chen in view of Reinstad (U.S. Patent No. 5,609,937). See Remarks at Paper 3.

The Applicant believes the Examiner has clearly erred in rejecting Claims 9, 11, and 12 under 35 USC §103(a) for the following reasons. The Applicant respectfully disagrees that the Claims 9, 11, and 12 are unpatentable over Patterson and Chen in view of Reinstad. With respect to Claims 9, 11, and 12, for similar reasons as stated above, Patterson and Chen are not applicable references. Reinstad is also not an applicable reference. In contrast to the present application, Reinstad discloses a frame for a panel filter with an un-pleated filter which may be a fibrous pad, stacked expanded metal foil sheets, or a strainer, and the frame grips the edges of the pad resiliently. Reinstad does not concern filter elements comprising a series of lozenge-sectioned filtration chambers and therefore Reinstad does not contain any teaching regarding how to secure these specific filter elements during reverse air pulsing. Therefore, Claims 9, 11, and 12 are patentable over Patterson and Chen in view of Reinstad.

C. The Examiner has clearly erred in rejecting claim 13 under 35 U.S.C. §103 (a) as being unpatentable over Patterson in view of Chen. See Remarks at Paper 3.

The Applicant believes the Examiner has clearly erred in rejecting Claim 13 under 35 USC §103(a) for the following reasons. The Applicant respectfully disagrees that Claim 13 is unpatentable over Patterson in view of Chen. The Examiner suggests that the specific shape of the edge strip in Claim 13 would have been obvious to one of ordinary skill in the art. The Applicant believes that the shaped defined in Claim 13, which corresponds to Fig. 4 of the present application, is not obvious. The Applicant believes that the specific arrangement of the edge strip provides for positive clamping of the ends of the filter cloths with the strip 33 in the side members. Therefore, the Applicant believes that the rejection for Claim 13 should be withdrawn.

D. The Examiner has clearly erred in rejecting claim 14 is rejected under 35 U.S.C. §103 (a) as being unpatentable over Patterson and Chen in view of Andress. See Remarks at Paper 3.

The Applicant believes the Examiner has clearly erred in rejecting Claim 14 under 35 USC §103(a) for the following reasons. The Applicant respectfully disagrees that Claim 14 is unpatentable over Patterson and Chen in view of Andress. The Applicant submits that Patterson and Chen, based upon remarks above, are not applicable references and therefore cannot be combined with Andress. Therefore, the Applicant submits that the rejection for Claim 14 be withdrawn.

E. The Examiner has clearly erred in rejecting claims 15-17 are rejected under 35 U.S.C. §103 (a) as being unpatentable over Patterson and Chen in view of Evans. See Remarks at Paper 3.

The Applicant believes the Examiner has clearly erred in rejecting Claims 15-17 under 35 USC §103(a) for the following reasons. The Applicant respectfully disagrees that Claim 15-17 is unpatentable over Patterson and Chen in view of Evans. For reasons stated above, the Applicant maintains that Patterson and Chen are not applicable or relevant references. In addition, the Applicant believes that Evans is not an applicable reference. In contrast to the present invention, Evans describes air filter panels incorporating edge frames 35 which embrace the edges of a multi layer filter element, of indeterminate type illustrated as a stack of rigid filter elements. Evans does not concern filter elements comprising a series of lozenge-sectioned filtration chambers and therefore Evans does not contain any teaching regarding how to secure these specific filter elements during reverse air pulsing. Therefore, the Applicant requests that the rejection be withdrawn for Claims 15-17.